

The University of Kansas

Center for Research on Learning

The Strategic Instruction Model: Responding to the Challenge of NCLB



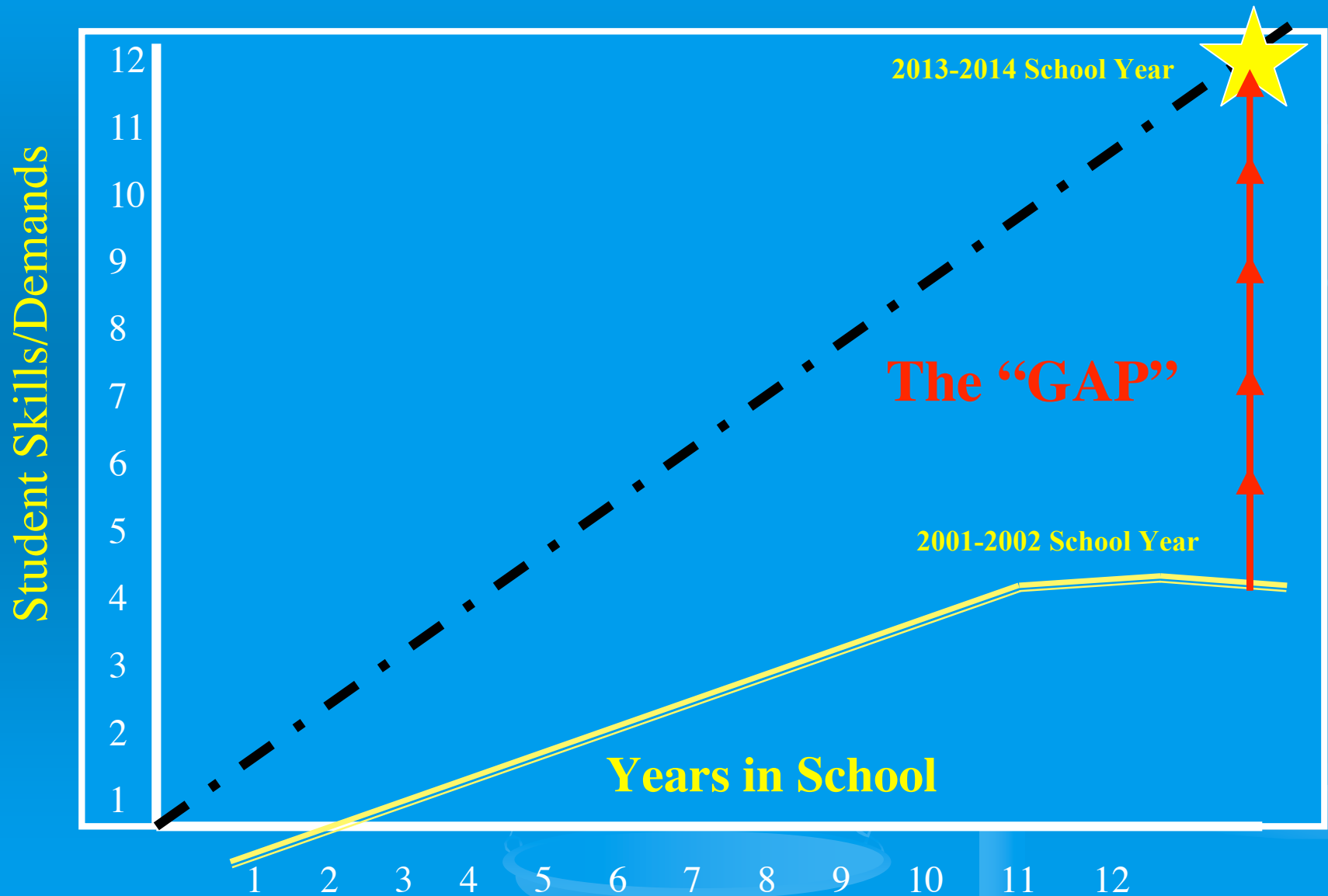
About the KU-CRL

Founded in 1978

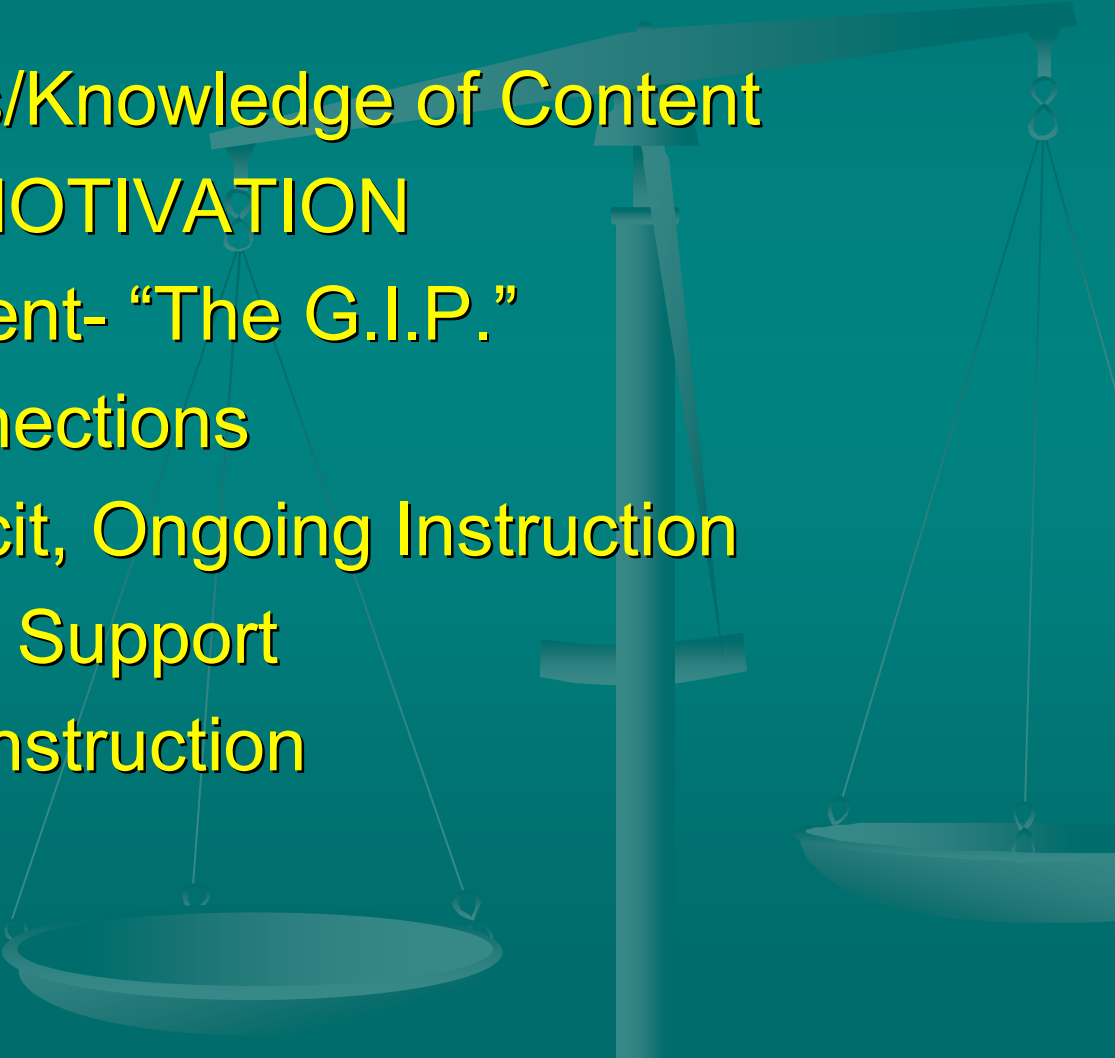
Mission: *Dramatically improve the performance of at-risk students and students with disabilities in grades 4-12 through research-based interventions*

- \$70+ million dollars of contracted R & D
- International Professional Development Network
 - 275,000 teachers in 3,500 school districts

The Performance Gap

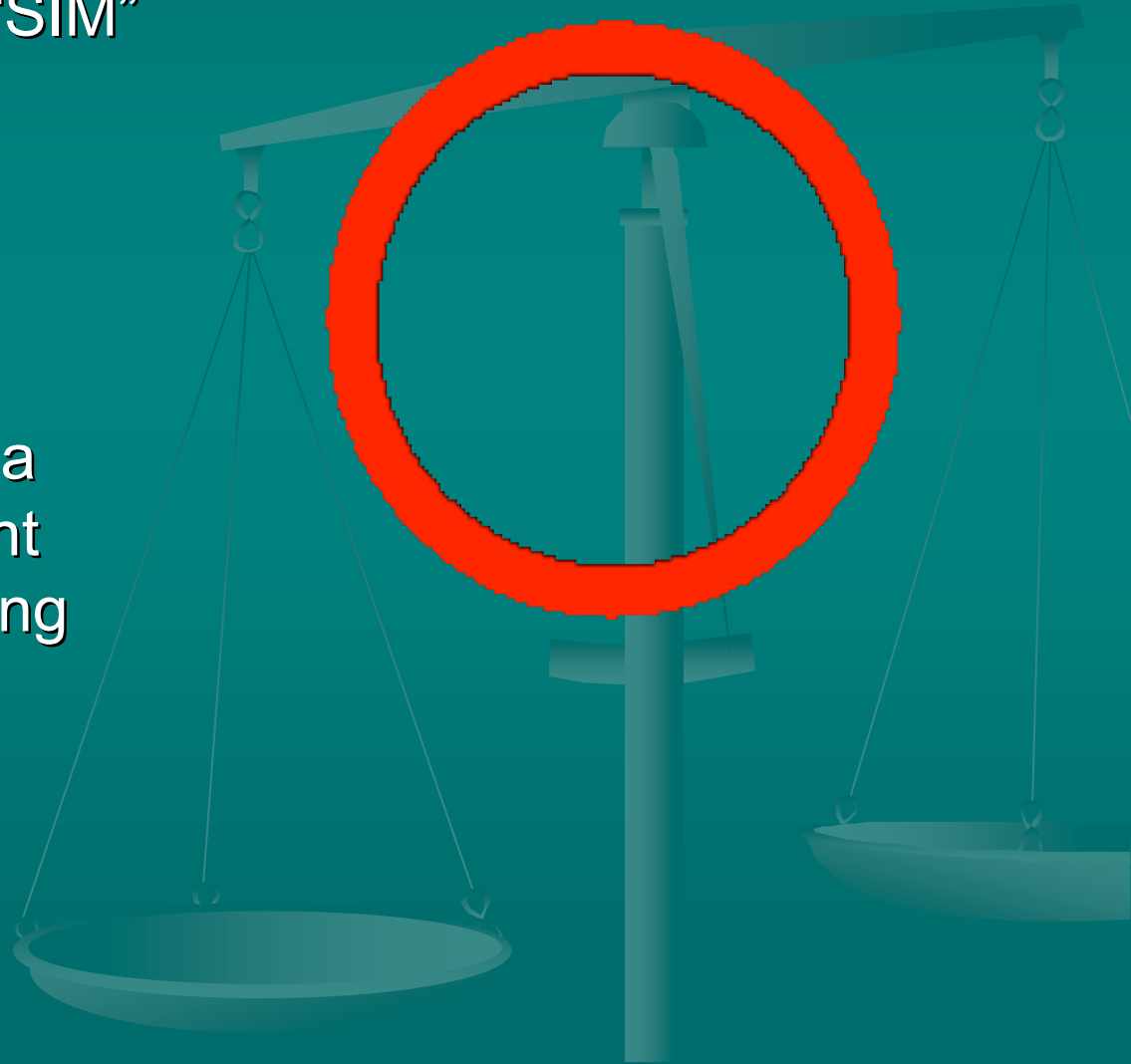


What do students in the GAP need for success?

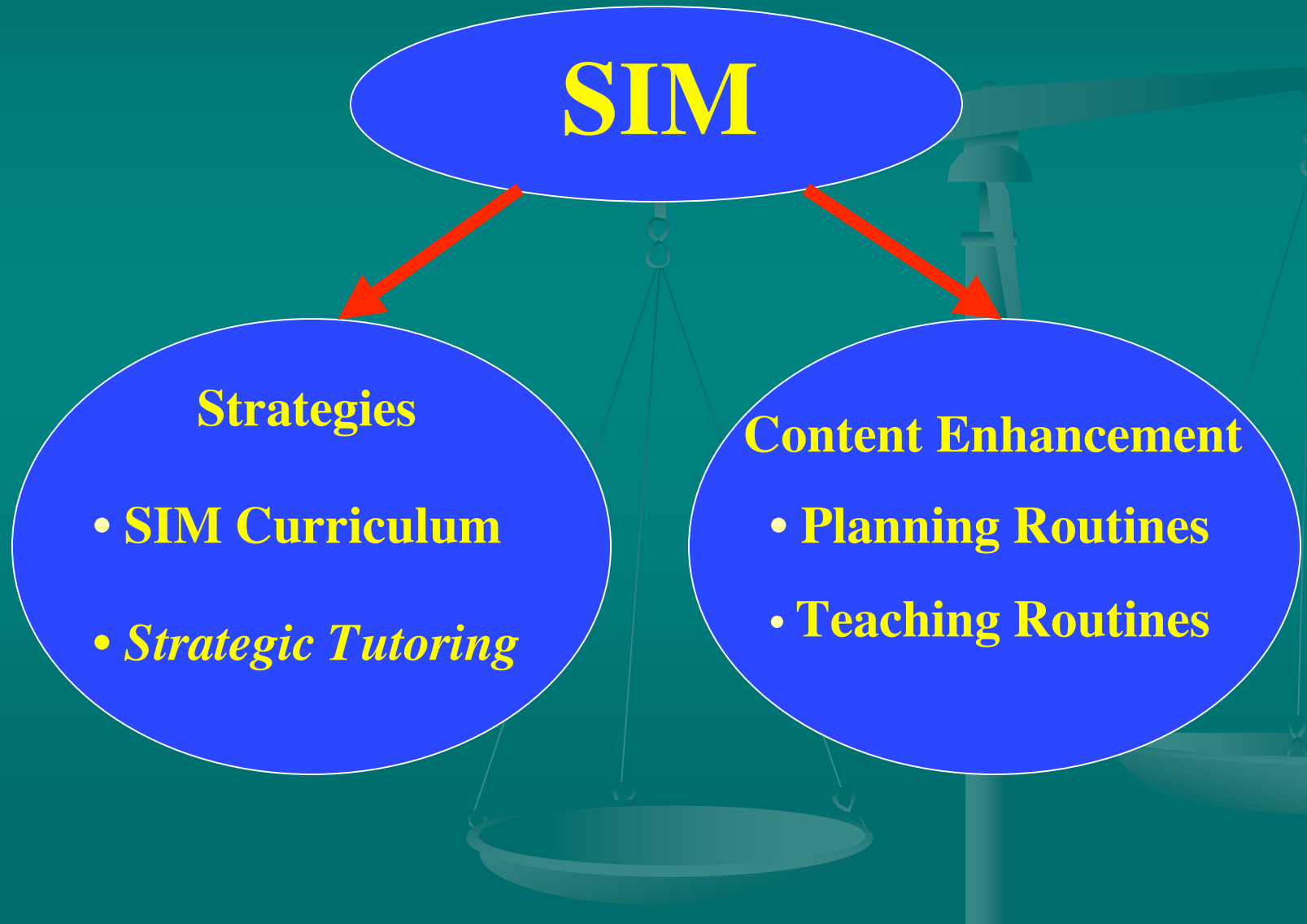
- ✓ Skills/Strategies/Knowledge of Content
 - ✓ Goal oriented-MOTIVATION
 - ✓ Strategy Proficient- “The G.I.P.”
 - ✓ Mentors & Connections
 - ✓ Intensive, Explicit, Ongoing Instruction
 - ✓ Comprehensive Support
 - ✓ Great Content Instruction
- 

Session Outcomes

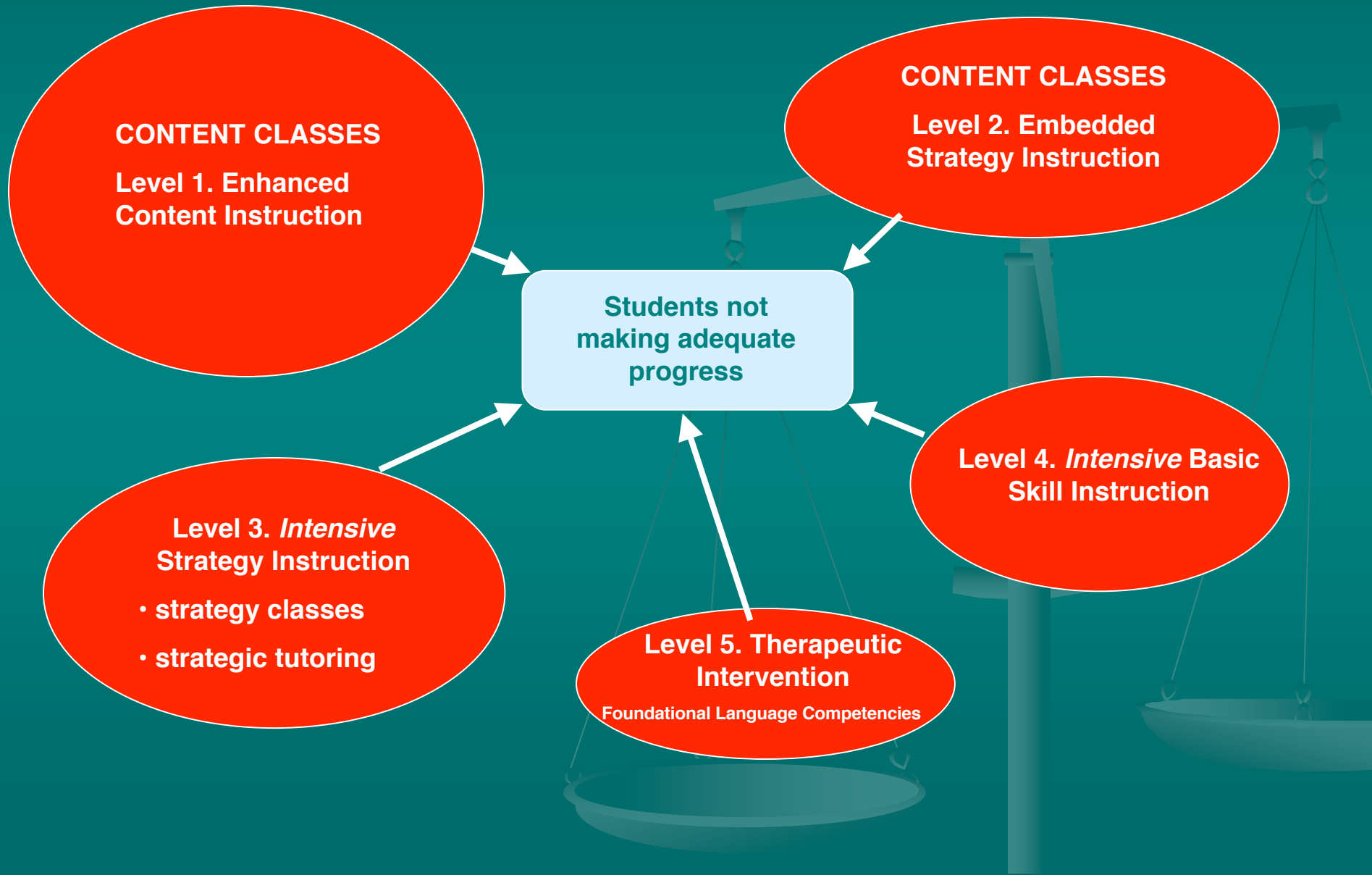
- Raise awareness of “SIM”
- Define “strategic instruction”
- Explore examples of a Content Enhancement Routine and a Learning Strategy



The Strategic Instruction Model



SIM Content Literacy Continuum



Content Enhancement Routines

(Levels 1 and 2)

- A way of teaching academically diverse classes in which
 - The integrity of the content is maintained
 - Critical content is selected and transformed
 - Content is taught in an active partnership with students
 - Strategies are embedded in the course and introduced to students



Content Enhancement Teaching Routines

Planning and Leading Learning

Course Organizer
Unit Organizer
Lesson Organizer

Explaining Text, Topics, and Details

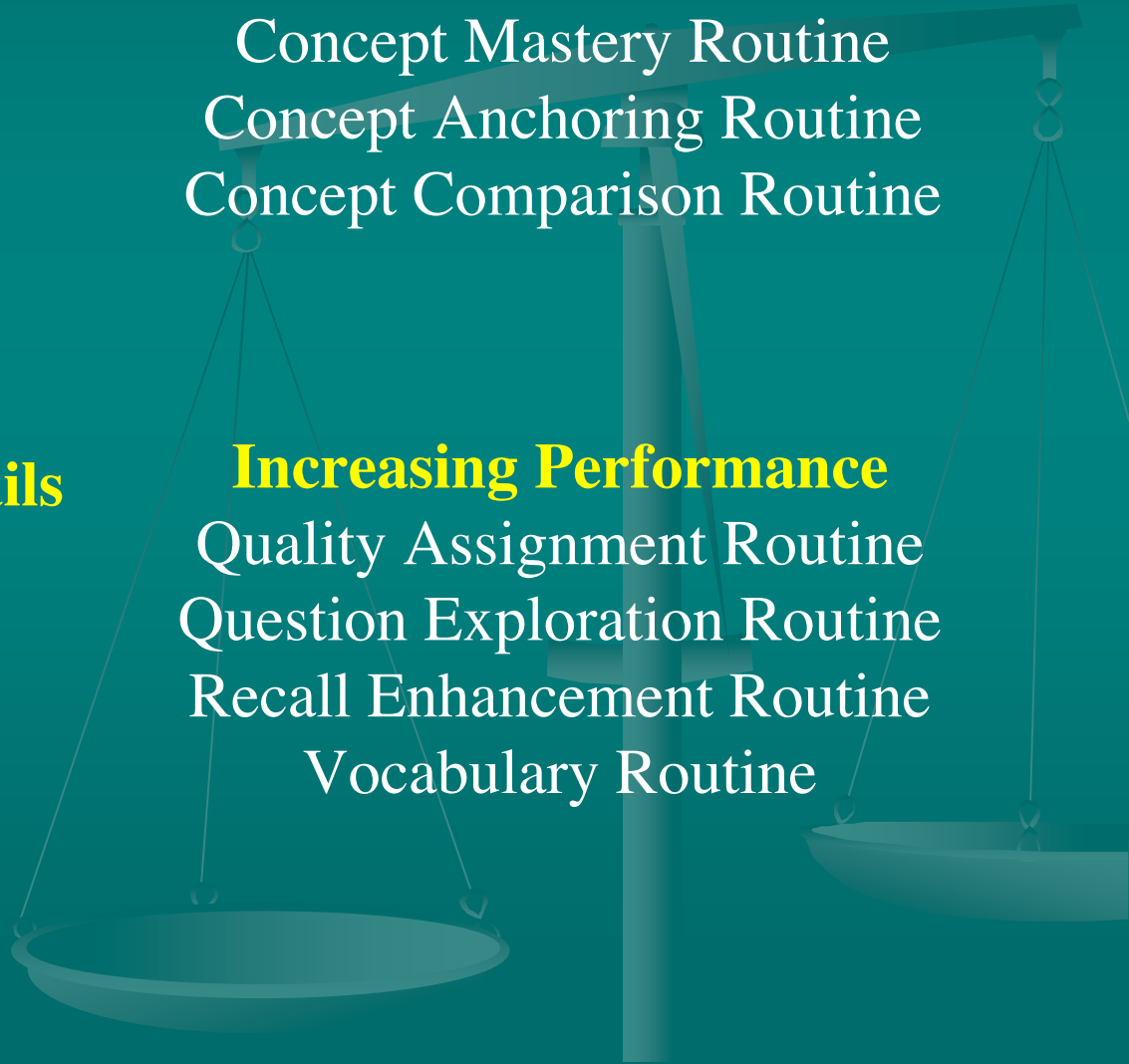
Framing Routine
Survey Routine
Clarifying Routine

Teaching Concepts

Concept Mastery Routine
Concept Anchoring Routine
Concept Comparison Routine

Increasing Performance

Quality Assignment Routine
Question Exploration Routine
Recall Enhancement Routine
Vocabulary Routine



The Unit Organizer

④ BIGGER PICTURE

NAME Sharra Ti
DATE 4/1

| ② LAST UNIT/Experience | | ① CURRENT UNIT | | ③ NEXT UNIT/Experience | |
|----------------------------|---|----------------|--|------------------------|--|
| Invertebrates | | Vertebrates | | Ecology | |
| ⑧ UNIT SCHEDULE | | ⑤ UNIT MAP | | | |
| 4/1 | Introduce vertebrates | | | | |
| 4/4 | Fish/Amphibian of choice report due | | | | |
| 4/5 | Fish/Amphibian quiz | | | | |
| | | | | | |
| | | | | | |
| 4/10 | Reptile quiz | | | | |
| 4/12 | Trip to natural history museum | | | | |
| 4/15 | Trip report due | | | | |
| | | | | | |
| 4/16 | Bird/Mammal quiz | | | | |
| 4/17 | Lab report due | | | | |
| 4/18 | Review | | | | |
| 4/19 | Test | | | | |
| ⑦ UNIT SELF-TEST QUESTIONS | What are the basic differences among the major groups of vertebrates? In what ways is life on land more difficult than life in water? What is mean by cold blooded and warm blooded? Which of the major groups of vertebrates is the most successful group? Why? | | | ⑥ UNIT RELATIONSHIPS | |
| | | | | explanation | |
| | | | | compare/contrast | |
| | | | | | |

The Unit Organizer

④ BIGGER PICTURE

NAME Elida Cordora
DATE 1/22

| ② LAST UNIT /Experience | | ① CURRENT UNIT | | ③ NEXT UNIT /Experience | |
|--------------------------|---|-----------------------------|--|-------------------------|--|
| Growth of the Nation | | The Causes of the Civil War | | The Civil War | |
| ⑧ UNIT SCHEDULE | | ⑤ UNIT MAP | | | |
| 1/22 | Cooperative groups - over pp. 201-210 | | | | |
| 1/28 | Quiz | | | | |
| 1/29 | Cooperative groups - over pp. 210-225 | | | | |
| | "Influential Personalities" project due | | | | |
| 1/30 | Quiz | | | | |
| 2/2 | Cooperative groups - over pp. 228-234 | | | | |
| | | | | | |
| 2/6 | Review for test | | | | |
| 2/7 | Review for test | | | | |
| 2/6 | Test | | | | |
| UNIT SELF-TEST QUESTIONS | ⑦ | | | ⑥ UNIT RELATIONSHIPS | |
| | What was sectionalism as it existed in the U. S. of 1860? | | | descriptive | |
| | How did the differences in the sections of the U.S. in 1860 contribute to the start of the Civil War? | | | compare/contrast | |
| | What examples of sectionalism exist in the world today? | | | cause/effect | |

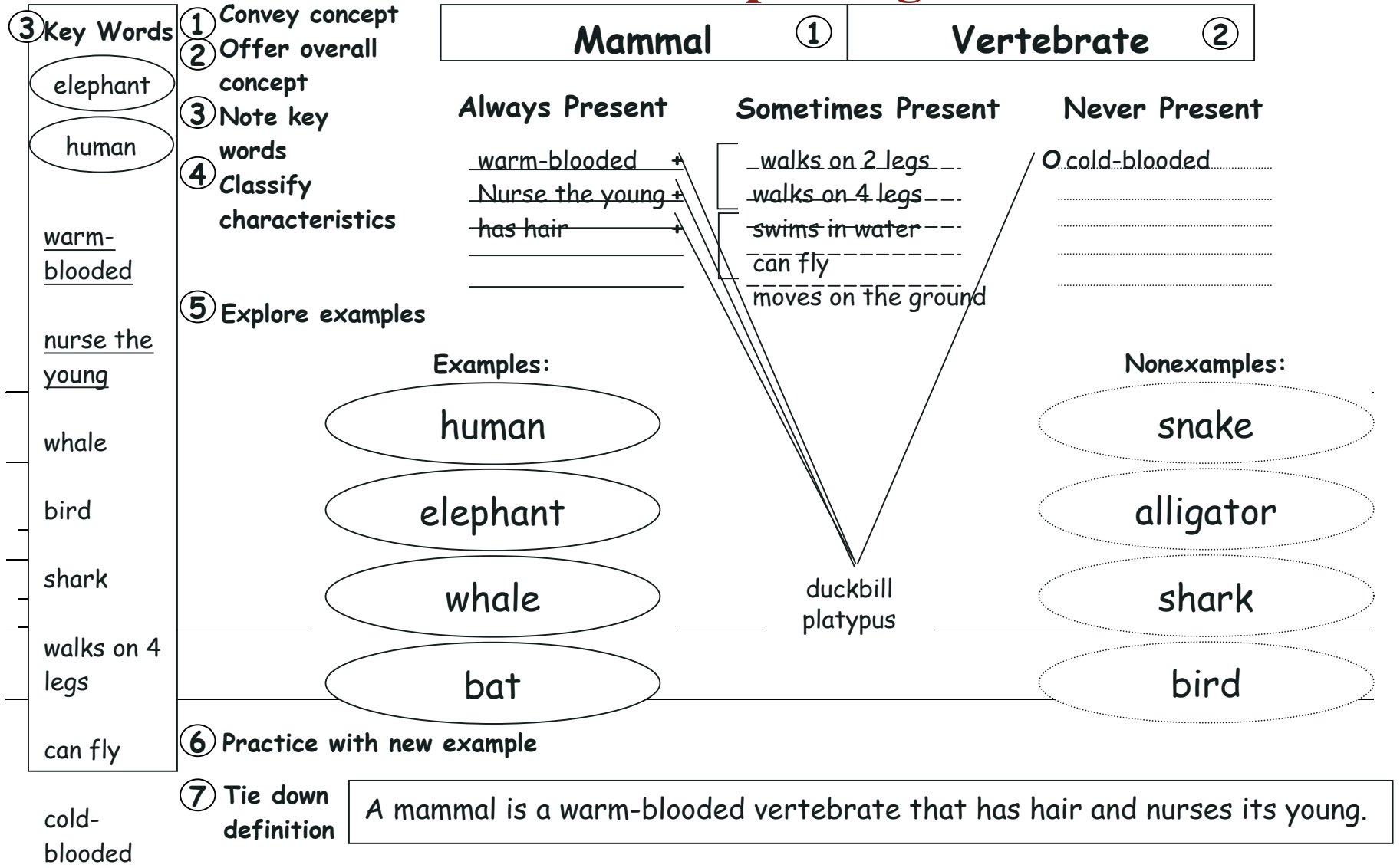
The Unit Organizer

④ BIGGER PICTURE

NAME Will Colebank
DATE April, 2004

| ② LAST UNIT/Experience | | ① CURRENT UNIT | | ③ NEXT UNIT/Experience | |
|--------------------------|--|---|--|------------------------|--|
| Ancient Rome | | The Middle Ages | | Incas, Mayans, Aztecs | |
| ⑧ UNIT SCHEDULE | | ⑤ UNIT MAP | | | |
| | | <pre> graph TD A([A period in history that saw many changes in many directions]) A -- "is about..." --> B([I. New system Of government called feudalism]) A -- "Which resulted from" --> B A -- "Which brought about" --> C([II. The Era of the Great Castles]) A -- "and was influenced by" --> D([III. The beginnings Of the Islamic faith]) A -- "which lead to" --> E([IV. The Crusades]) A -- "Which leads To explore" --> F([VI. History Of Disease And the Bubonic Plague]) A -- "as a result" --> G([V. Disagreements About faith causes continual problems]) </pre> | | | |
| UNIT SELF-TEST QUESTIONS | | <p>I. Why did feudalism replace democracy of the Roman Empire?</p> <p>II. Why are castles considered an icon of the Middle Ages?</p> <p>III. How does Islam different from Christianity?</p> <p>IV. Why did Christians decide that war was the only way to settle their differences in beliefs?</p> <p>V. Why are there still conflicts between Christians and Muslims?</p> <p>VI. How did changes in technology affect living conditions during the Middle Ages?</p> | | | |

Concept Diagram



Concept Diagram

③ Key Words

U.S Civil War

Northern Ireland

citizens

one nation

ethnic

many nations

social rights

"Desert Storm"

① Convey concept

② Offer overall concept

③ Note key words

④ Classify characteristics

⑤ Explore examples

⑥ Practice with new example

⑦ Tie down definition

Civil war ①

armed conflict ②

Always Present

groups of citizens +
within a single nation +
distribution of power +

Sometimes Present

economic -----
religious -----
ethnic -----
social -----
political -----

Never Present

War between nations

Examples:

U.S. war between the States

Northern Ireland

1990's crisis in the Balkans

American Revolutionary War

Nonexamples:

World War I

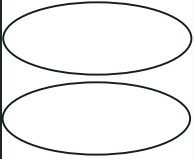
World War II

"Desert Storm"

A civil war is a type of armed conflict among groups of citizens of a single nation that is caused by concerns about the distribution of power.

Concept Diagram

③ Key Words



① Convey concept

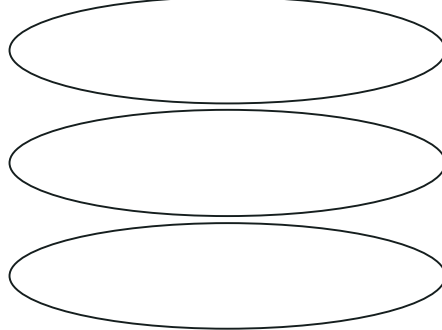
② Offer overall concept

③ Note key words

④ Classify characteristics

⑤ Explore examples

Examples:



⑥ Practice with new example

⑦ Tie down definition



feudalism

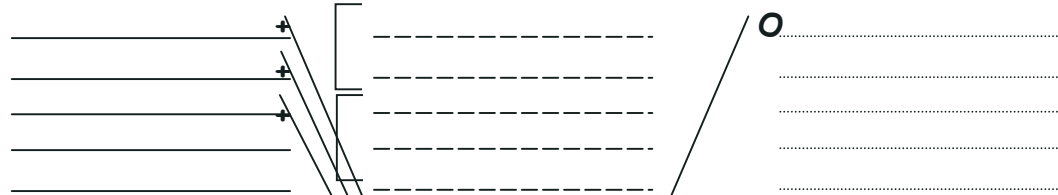
①

form of government ②

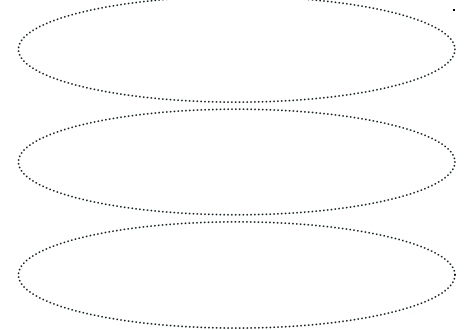
Always Present

Sometimes Present

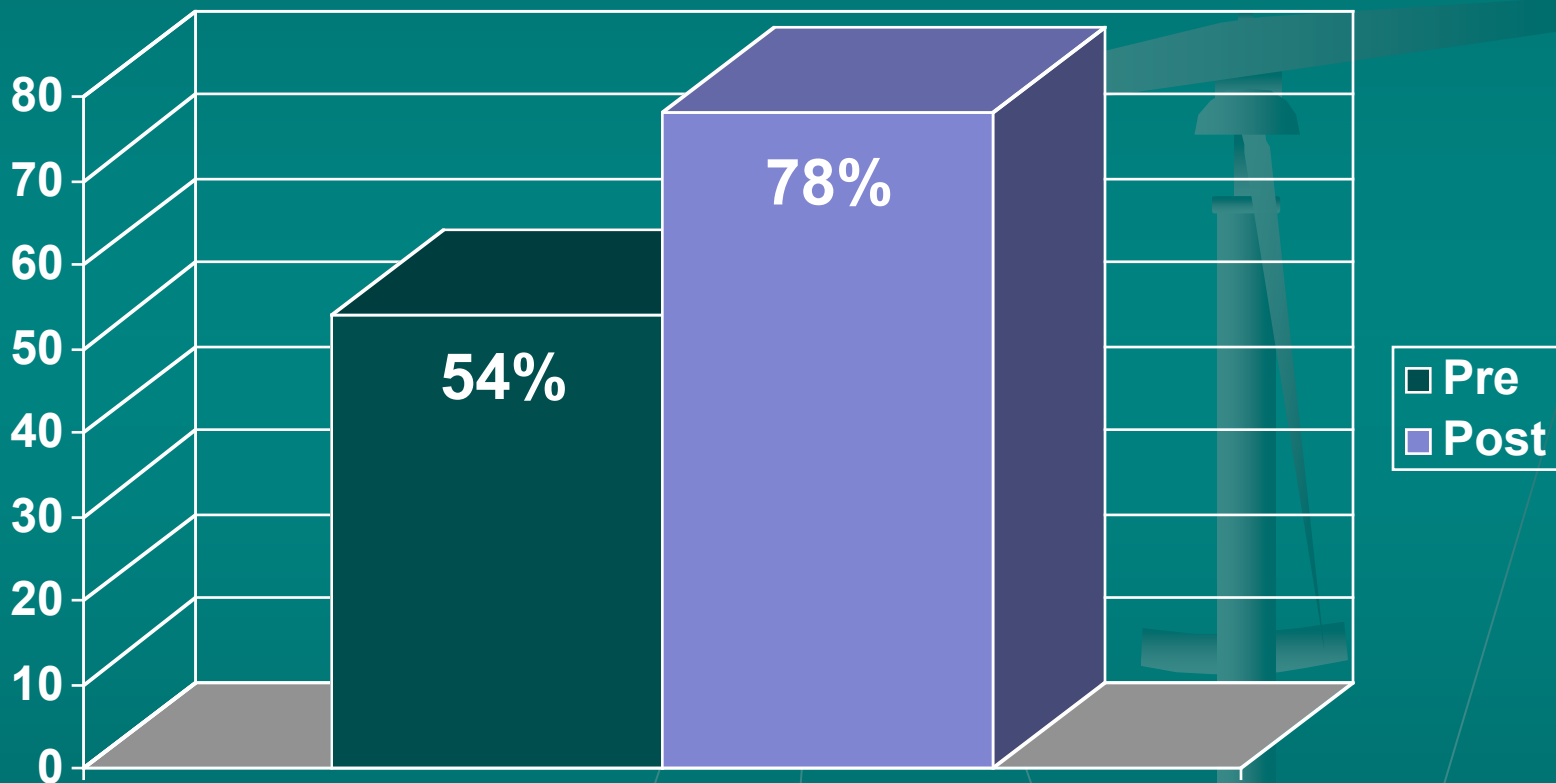
Never Present



Nonexamples:



Concept Mastery Results



Test scores of students with disabilities on unit tests

An Individual's approach to a task is
called a

STRATEGY



```
graph TD; A[STRATEGY] --> B[It includes how a person thinks and acts when planning, executing, and evaluating performance on a task and its outcomes.];
```

It includes how a person
thinks and **acts** when
planning, executing, and
evaluating performance on
a task and its outcomes.

Pretest Word List

steenbok small prehistoric deer-like animal
that lived in Africa

scandium rare mineral found in upper-most
regions of the northern hemisphere

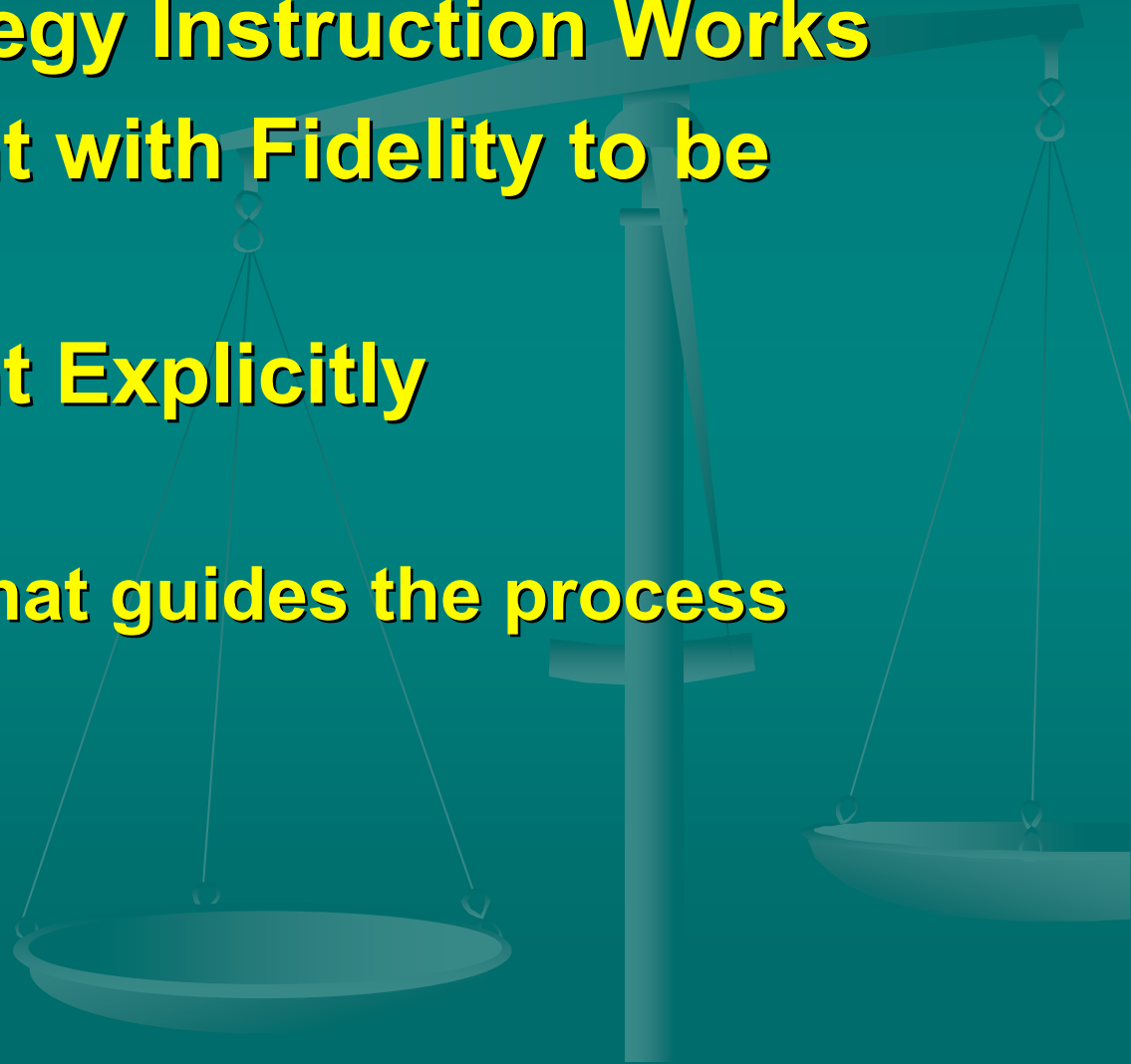
pinna type of feather from a bird's wing

recreant unfaithful to a cause or pledge

toman a Persian gold coin of varying value

The Power of Strategies

- Learning Strategy Instruction Works
- Must be Taught with Fidelity to be Effective
- Must be Taught Explicitly
 - The process
 - The thinking that guides the process



Learning Strategies Curriculum

Acquisition

Word Identification
Paraphrasing
Self-Questioning
Visual Imagery
Interpreting Visuals
Multipass
The Bridging Strategy
*(decoding, word id,
fluency)*
Making Inferences

Storage

First-Letter
Mnemonic
Paired Associates
Listening/Notetaking
LINCS Vocabulary

Expression of Competence

Sentences
Paragraphs
Error Monitoring
Themes
Assignment
Completion
Test-Taking

Motivation

Self Advocacy &
Transition Planning
Surface Counseling
Possible Selves



Eight-Stage Instructional Process

1. Assess and Make Commitments
 2. Describe
 3. Model
 4. Verbal Practice
 5. Controlled Practice
 6. Advanced Practice
 7. Posttest and Make Commitments
 8. Generalization
- 
- A faint, stylized illustration of a balance scale is visible in the background. The scale is positioned on the right side of the slide, with its beam extending towards the left. The left pan is lower than the right pan, indicating it is heavier. The scale is rendered in a light teal color, matching the background.

Model of a Learning Strategy



- **“SHARE**
- **“SLANT”**
- **“LINCS”**

An Overview of the LINCS Strategy

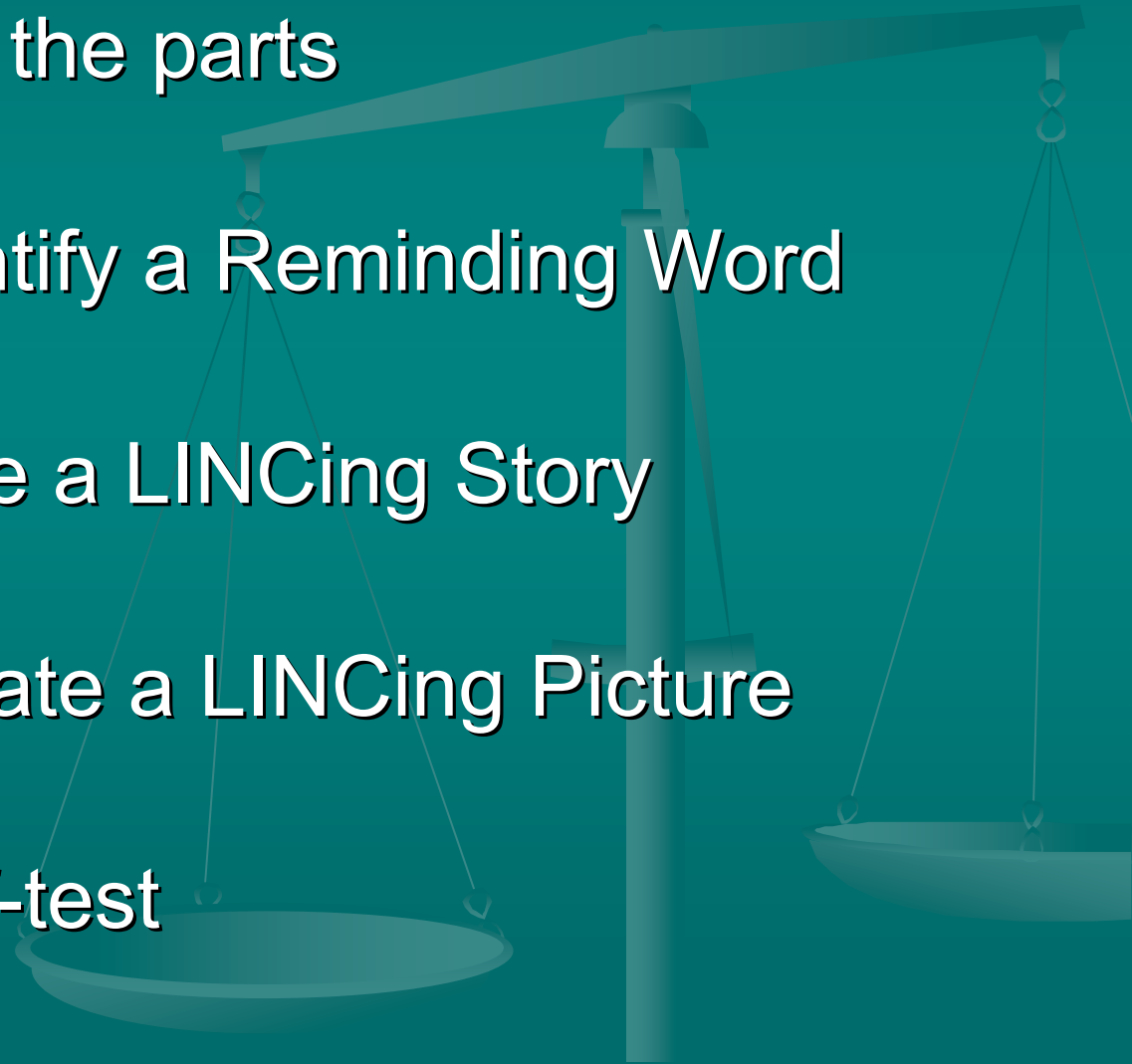
Step 1: List the parts

Step 2: Identify a Reminding Word

Step 3: Note a LINCing Story

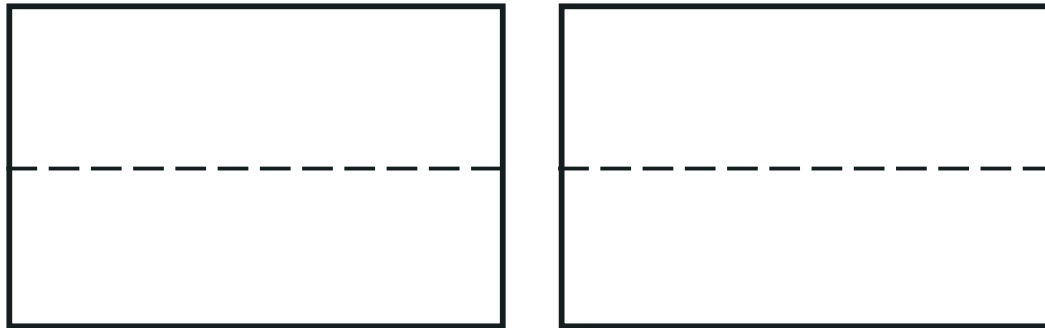
Step 4: Create a LINCing Picture

Step 5: Self-test



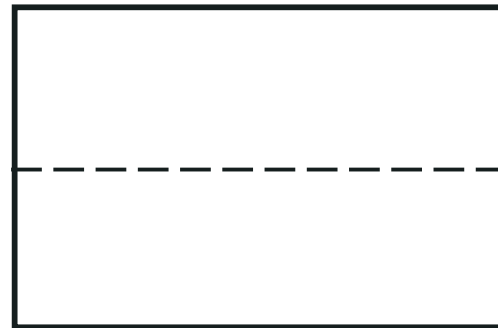
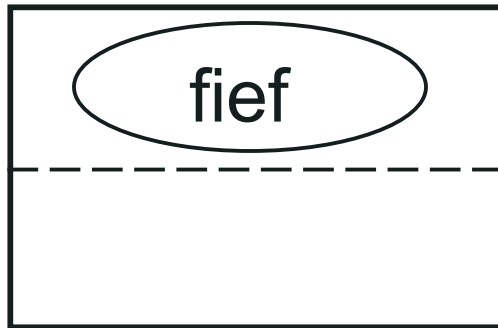
Creating LINC Study Cards

1. Take an index card and divide both sides in half by drawing lines across the middle of both sides.



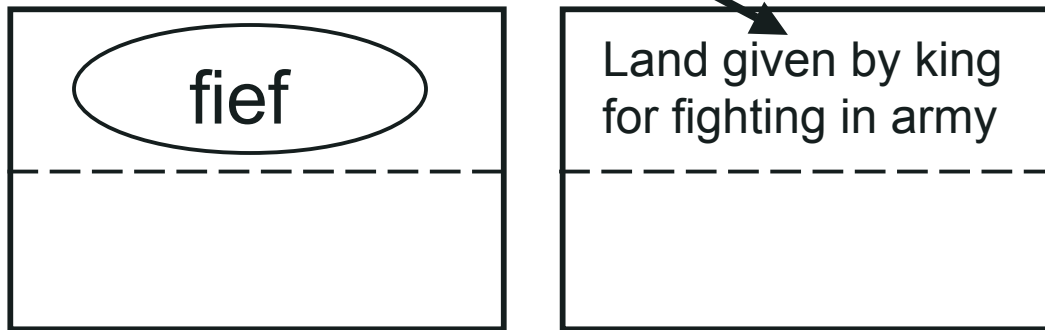
Creating LINC Study Cards *(cont.)*

2. Write the word to be learned on the top half of one side. Then circle it.



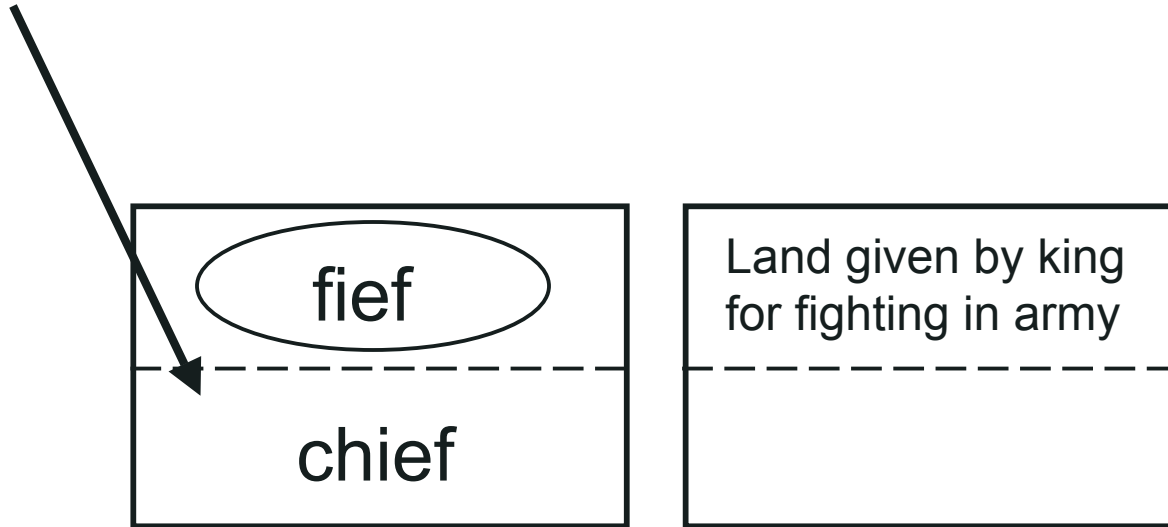
Creating LINC Study Cards *(cont.)*

3. Write the parts of the definition you need to remember on the top of the other side.



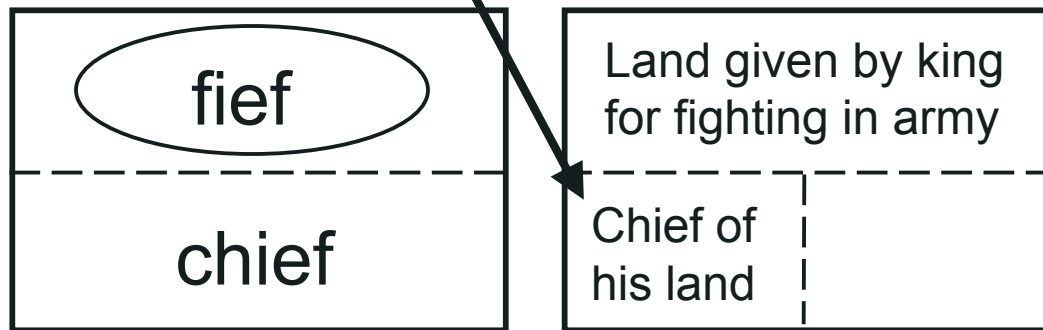
Creating LINCS Study Cards *(cont.)*

4. Write the Reminding Word on the bottom half of the first side.



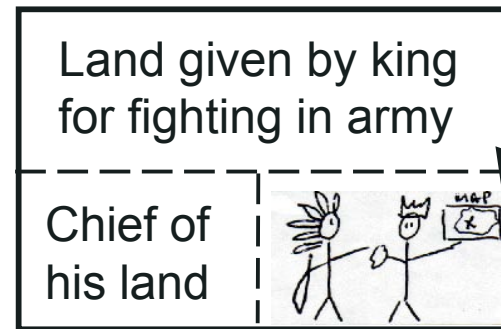
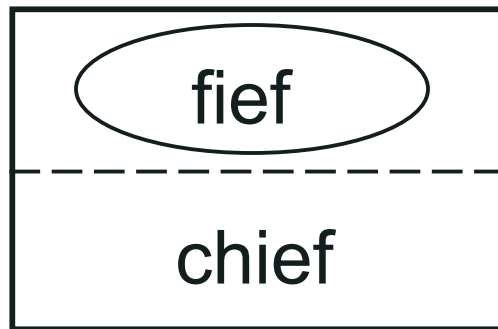
Creating LINC Study Cards *(cont.)*

5. Write the LINCing Story on the bottom half of the second side.



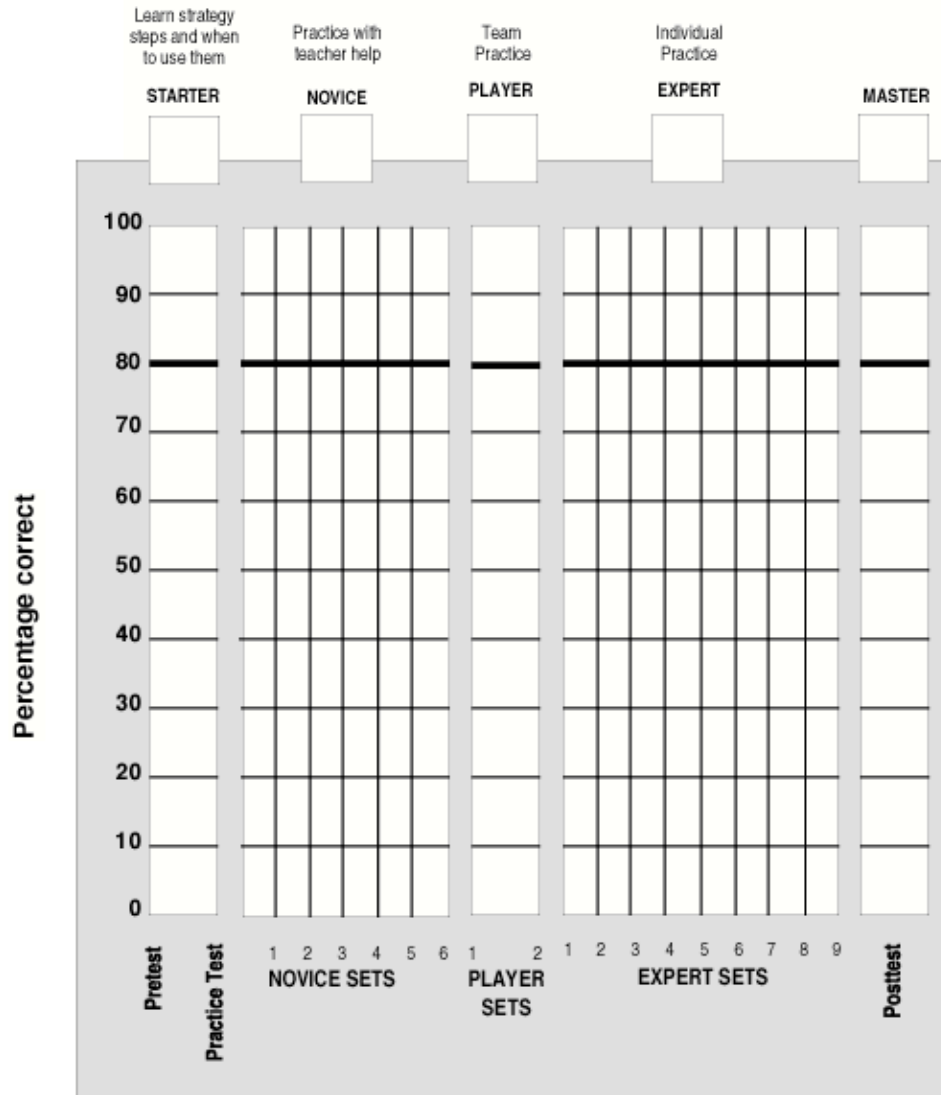
Creating LINCS Study Cards *(cont.)*

6. Draw the LINCing Picture on the bottom half of the second side.



LINCS Progress Chart

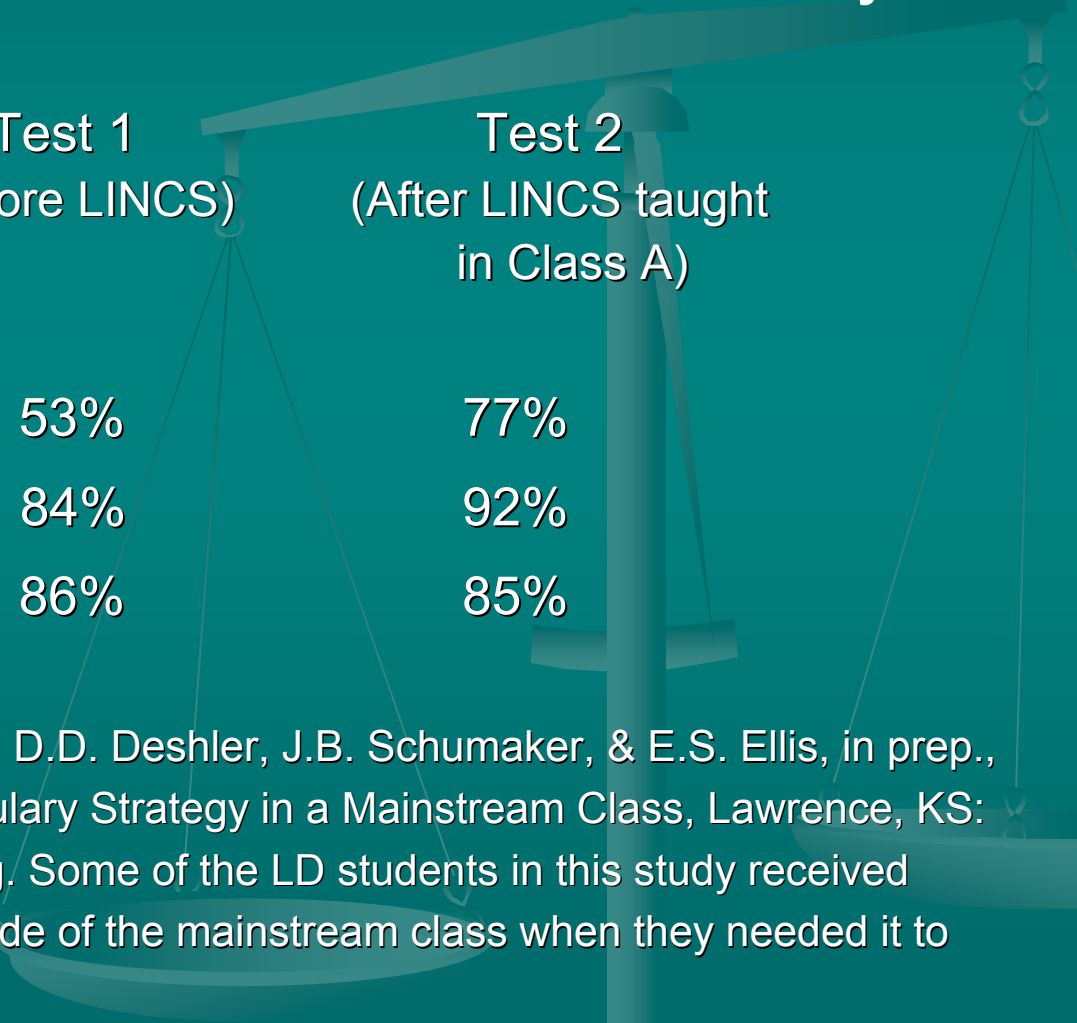
Name: _____



LINCS Strategy Results

Table 1:

Mean Percentage Correct on Social Studies Vocabulary Tests*



| | Test 1 (Before LINCS) | Test 2 (After LINCS taught in Class A) |
|-------------------------|--------------------------|--|
| LD students in Class A | 53% | 77% |
| NLD students in Class A | 84% | 92% |
| All students in Class B | 86% | 85% |

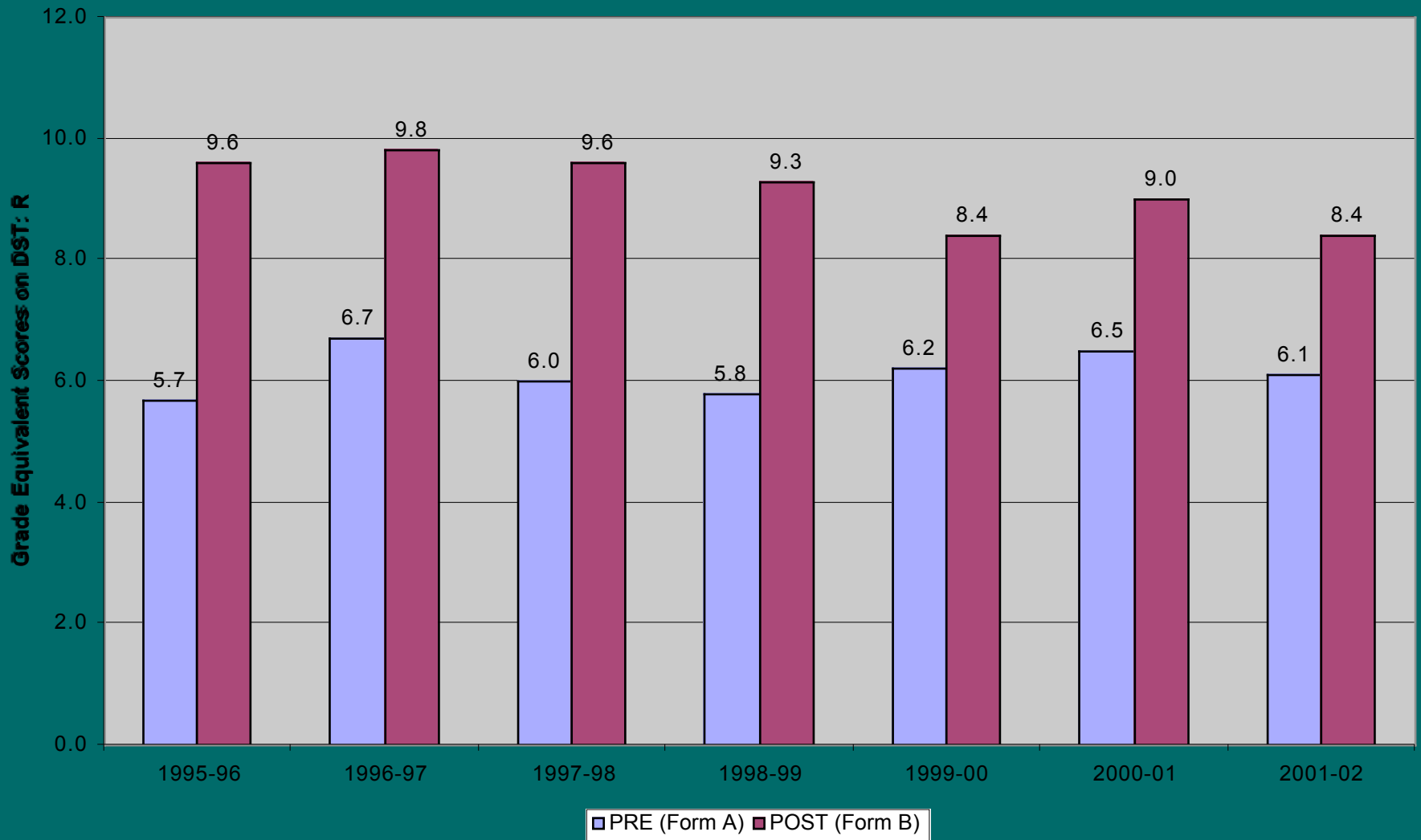
* These results are by M. Wedel, D.D. Deshler, J.B. Schumaker, & E.S. Ellis, in prep., Effects of Instruction of a Vocabulary Strategy in a Mainstream Class, Lawrence, KS: Center for Research on Learning. Some of the LD students in this study received additional instructional time outside of the mainstream class when they needed it to complete the practice activities.

Word Identification

- **D**iscover the context
- **I**solate the prefix
- **S**eparate the suffix
- **S**ay the stem
- **E**xamine the stem
- **C**heck with someone
- **T**ry the dictionary



Word Identification Intervention at MHS (9th grade)
ALL STUDENTS (Average # students per year is ~100)

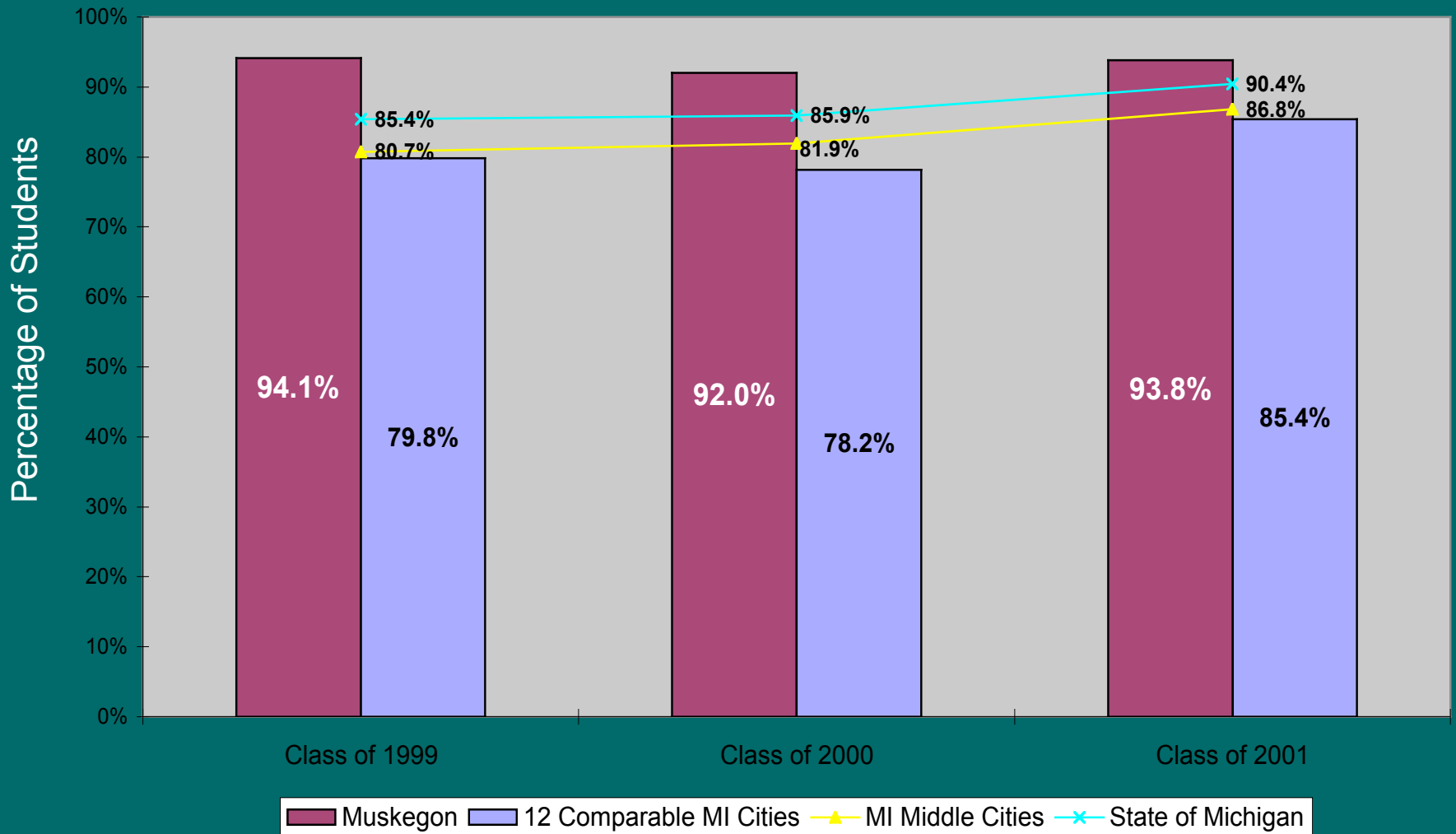


Written Expression Strategies

- **Sentence Writing Strategy**
- **Paragraph Writing Strategy**
- **Theme Writing Strategy**
- **Error Monitoring Strategy**



**Muskegon in Relation to Like Districts & State of Michigan
Comparisons of Writing MEAP Over 3 Years
% Students Passing the Test**



“As a result of tracking AYP, I was able to see a difference of an average 35% from pretest to post-test on two units in social studies. I know there are probably many reasons; however, the main one I believe is responsible is the effectiveness of these excellent tools. I have been teaching for 20 years and just finished my Masters in Education. The Content Enhancement program is an effective tool. Our students love the routines and I think as a result of this program, students are learning more. I was able to reach a professional goal to differentiate instruction based on research. The University of Kansas research certainly is convincing.”

**Will Colebank
Fountain, CO**

***STUDENT
SUCCESS*** =



Tools!

The Strategic Instruction Model

University of Kansas

Center for Research on Learning

www.kucrl.org

A red toolbox with a silver handle and latch is centered on a wooden surface. Various tools are scattered around it, including a hammer, a wrench, a screwdriver, a saw, and a green container. The background is a dark brown wall with a pattern of small, dark circles.